

JC05 Received 22 MAR 2002

FORM PTO-1390 (REV. 11-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER AJO-101-A	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/089005	
INTERNATIONAL APPLICATION NO. PCT/GB00/03617		INTERNATIONAL FILING DATE September 21, 2000		PRIORITY DATE CLAIMED September 22, 1999	
TITLE OF INVENTION MOBILE TELEPHONE-BASED ALARM DEVICE					
APPLICANT(S) FOR DO/EO/US ROGER CLIFFORD					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input checked="" type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (unsigned) 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A change of power of attorney and/or address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825. 18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input type="checkbox"/> Other items or information:					

U.S. APPLICATION NO (if known, see 37 CFR 1.5) 10/089005	INTERNATIONAL APPLICATION NO PCT/GB00/03617	ATTORNEY'S DOCKET NUMBER AJO-101-A
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21. <input type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1000.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$860.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$710.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$690.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =	CALCULATIONS PTO USE ONLY																										
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).	\$	890 00																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:20%;">CLAIMS</th> <th style="width:20%;">NUMBER FILED</th> <th style="width:20%;">NUMBER EXTRA</th> <th style="width:20%;">RATE</th> <th style="width:20%;">\$</th> </tr> <tr> <td>Total claims</td> <td>- 20 =</td> <td></td> <td>x \$18.00</td> <td>\$</td> </tr> <tr> <td>Independent claims</td> <td>- 3 =</td> <td></td> <td>x \$80.00</td> <td>\$</td> </tr> <tr> <td colspan="3">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+ \$270.00</td> <td>\$</td> </tr> <tr> <td colspan="4" style="text-align: right;">TOTAL OF ABOVE CALCULATIONS =</td> <td>\$ 1,020 00</td> </tr> </table>	CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	Total claims	- 20 =		x \$18.00	\$	Independent claims	- 3 =		x \$80.00	\$	MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$	TOTAL OF ABOVE CALCULATIONS =				\$ 1,020 00	\$	1,020 00
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MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$																							
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<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.	\$	510 00																									
SUBTOTAL =	\$	510 00																									
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).	\$																										
TOTAL NATIONAL FEE =	\$	510 00																									
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +	\$																										
TOTAL FEES ENCLOSED =	\$	510 00																									
	Amount to be refunded:	\$																									
	charged:	\$																									

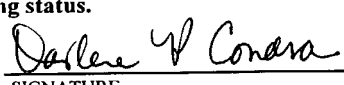
a. ☒ A check in the amount of \$ 510.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
 A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
 overpayment to Deposit Account No. 25-0115 A duplicate copy of this sheet is enclosed.

d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card
 information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO: Andrew R. Basile YOUNG & BASILE, P.C. 3001 W. Big Beaver Rd., Ste. 624 Troy, MI 48084	 SIGNATURE Darlene P. Condra NAME <u>37113</u> REGISTRATION NUMBER
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Our Reference: AJO-101-A

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Roger Clifford
 Serial Number: Unknown
 Filing Date: Concurrent
 Examiner/Art Group Unit: Unknown/Unknown
 Title: MOBILE TELEPHONE-BASED ALARM
 DEVICE

PRELIMINARY AMENDMENT

Assistant Commissioner of Patents
 Washington, D.C. 20231

Sir:

If any charges or fees must be paid in connection with the following communication, they may be paid out of our Deposit Account No. 25-0115.

Prior to initial examination, please amend the above-identified patent application as indicated below.

In the claims:

Please amend claim 3 as follows:

3. (Amended) A unit as claimed in Claim 1, wherein the unit is further provided with a visual display screen.

Please amend claim 4 as follows:

4. (Amended) A unit as claimed in claim 1, wherein the sensor is a movement sensor, which is actuated in response to any movement of the unit.

Please amend claim 5 as follows:

5. (Amended) A unit as claimed in claim 1, which is connectable to one or more external sensors.

Please amend claim 6 as follows:

6. (Amended) A unit as claimed in claim 1,
further comprising means for arming of the sensor or a selected one or more of
several sensors.

Please amend claim 12 as follows:

12. (Amended) A unit as claimed in claim 11,
further comprising means for issuing a local audible or visual alarm signal upon
detection of the alarm condition.

Please amend claim 13 as follows:

13. (Amended) A unit as claimed in claim 11,
further comprising manually actuatable means for issuing a local audible or visual
alarm signal.

Please amend claim 14 as follows:

14. (Amended) A unit as claimed in [any preceding] claim 11, further comprising a Global Positioning System (GPS) signal receiver adapted to receive GPS signals from two or more GPS satellites in orbit above the Earth, and adapted to transmit positional information derived from the GPS signals.

REMARKS

After entry of this amendment, claims 1 - 14 are pending in the application. Claims 3 - 6 and 12 - 14 have been amended.

It is submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Consideration of the application as amended is requested. It is submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

YOUNG & BASILE, P.C.



Darlene P. Condra
Attorney for Applicant(s)
Registration No. 37113
(248) 649-3333

3001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107

Dated: March 22, 2002
DPC/jas/dge

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Please amend claim 3 as follows:

3. (Amended) A unit as claimed in Claim 1 [or Claim 2], wherein the unit is further provided with a visual display screen.

Please amend claim 4 as follows:

4. (Amended) A unit as claimed in [any preceding] claim 1 wherein the sensor is a movement sensor, which is actuated in response to any movement of the unit.

Please amend claim 5 as follows:

5. (Amended) A unit as claimed in [any preceding] claim 1, which is connectable to one or more external sensors.

Please amend claim 6 as follows:

6. (Amended) A unit as claimed in [any preceding] claim 1, further comprising means for arming of the sensor or a selected one or more of several sensors.

Please amend claim 12 as follows:

12. (Amended) A unit as claimed in [any preceding] claim 11, further comprising means for issuing a local audible or visual alarm signal upon detection of the alarm condition.

Please amend claim 13 as follows:

13. (Amended) A unit as claimed in [any preceding] claim 11, further comprising manually actuatable means for issuing a local audible or visual alarm signal.

14. (Amended) A unit as claimed in [any preceding] claim 11, further comprising a Global Positioning System (GPS) signal receiver adapted to receive GPS signals from two or more GPS satellites in orbit above the Earth, and adapted to transmit positional information derived from the GPS signals.

Title – Mobile telephone-based alarm device

This invention relates to a mobile telephone device, and in particular to a mobile telephone device operable manually or automatically as an alarm unit.

5

Many different forms of alarm system are available. These are actuated to provide an indication of unwelcome events such as break-ins into property or vehicles, fire, attacks on persons etc. Alarm systems are available as specialist systems for dwellings, industrial premises, vehicles etc or for personal use. Apart from personal "attack" alarms, most others are hard-wired systems which issue alarm signals audibly and/or visually by means of sirens, visual beacons etc. In dwellings and industrial premises these alarms consist of a central hard-wired control box and several detectors which, when the system is armed, will detect movement. These detectors relay this information to a central control panel which activates the alarm in response, eg by sounding the alarm siren and/or causing warning lights to flash. Vehicle alarm systems operate in a similar fashion.

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Systems such as those described above are very inflexible and their use is limited to the building or vehicle in which they are installed. Once activated, they rely on either the intervention of a third party or the owner of the property being close enough to the property to be alerted by the alarm. Many activations of such alarms go unheeded.

25

Portable alarms are also known. Examples include personal attack alarms which are small units intended to be carried, eg in a pocket or handbag. In the event of the carrier being subjected to any form of physical attack the alarm can be manually activated so as to alert other persons in the vicinity and to elicit assistance.

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Alarm units are also known that, in addition to, or instead of, the simple activation of an alarm such as a flashing light or a siren, transmit alarm information to a remote location. Such a location may be an alarm receiving centre, which in turn

contacts a designated person or persons to alert them to activation of the alarm. Communication between the alarm unit and the alarm receiving centre in such cases may be via a cellular telephone network.

- 5 Other forms of device that utilise mobile telephony technology are so-called tracker systems installed in vehicles. Such devices transmit positional information to a remote alarm receiving centre. Typically, if the owner of a vehicle discovers that the vehicle has been stolen, he can contact the alarm receiving centre which then ascertains the position of the vehicle. Such
10 information can be transmitted to the owner or to the police to assist them in recovering the vehicle.

It is also known for alarm systems activated upon detection of an alarm condition automatically to place a telephone call to a predetermined number. However,
15 such systems are relatively inflexible and of limited utility.

There has now been devised a mobile-telephone based portable alarm unit which overcomes or substantially mitigates the above-mentioned or other disadvantages of the prior art.

20

According to a first aspect of the invention, there is provided a portable alarm and cellular telephone unit, comprising a cellular telephone transmitter/receiver, telephone number input means, a microphone and loudspeaker, wherein the unit further comprises a sensor adapted to detect an alarm condition, the sensor
25 being operably linked to the transmitter/receiver such that upon detection of the alarm condition an alarm call is placed automatically to a predetermined destination telephone number.

The unit according to the invention is advantageous primarily in that it is flexible
30 in application. The unit may be used in the manner of a conventional mobile telephone, whilst also being of utility as an alarm unit adapted to alert its owner in the event of, for instance, a vehicle in which the unit is placed being broken into

or stolen, or a room in which the unit is placed being entered by an intruder, or an item of luggage in which the unit is held being moved.

Preferably, the unit according to the invention is housed in a casing of similar size and dimensions to a conventional mobile telephone. This enables the unit to be carried comfortably in a pocket or in a handbag in a similar manner to a mobile telephone. The unit preferably has a similar general appearance to a conventional mobile telephone, with a microphone and loudspeaker disposed in a similar arrangement to that conventionally used in such cellular telephones and a numerical keypad functioning as the telephone number input means. The unit is also preferably provided with a visual display screen which, in addition to functioning in the same manner as the display screen of a conventional cellular telephone, will also display status information regarding the alarm functions of the unit.

The unit is generally and most conveniently battery-powered. The battery is preferably a rechargeable battery, being recharged using any suitable charging device or solar power.

The sensor may have any of a number of forms. The sensor may, for instance, be a movement sensor, which is actuated in response to any movement of the unit. Other forms of sensor which may be used include voltage drop sensors, infra-red sensors, heat sensors, air movement sensors, etc. The unit may incorporate just one sensor or there may be more than one type of sensor, all of which or a selected one or more of which may be armed at any one time, to suit the way in which the unit is being used at any particular time.

As well as one or more sensors built into the unit, the unit may be connectable to external sensors, eg sensors forming part of a conventional vehicle or domestic security system.

The unit preferably incorporates means for arming of the sensor (or a selected one or more of several sensors). Such means may comprise a manually

operated switch, which may require a key or similar means to prevent accidental or unauthorised switching on or off. Alternatively, the sensor may be armed by entering a predetermined code via the keypad or other input device.

- 5 Another, and particularly preferred, method of arming the sensor is by dialling-in to the unit from another telephone. This may be particularly convenient where the user of the device has a separate mobile telephone. By dialling-in to the unit it may be instantaneously armed. This is in contrast to the arming methods described above in which there is necessarily a delay between arming of the
- 10 sensor and it becoming operational. In addition, the unit may be armed from a remote location. Where this method is used, the unit preferably preprogrammed to accept an arming call only from a specified telephone numbers, eg the user's mobile telephone.
- 15 According to another aspect of the invention, there is provided a portable alarm unit comprising a cellular telephone receiver/transmitter and a sensor adapted to detect an alarm condition, the sensor being operably linked to the transmitter/receiver such that upon detection of the alarm condition an alarm call is placed automatically to a predetermined destination telephone number, and
- 20 wherein the sensor is alternately armed and disarmed by reception of an incoming telephone call.

As mentioned above, the arming/disarming call is preferably from a preprogrammed, specified telephone number. In other words, it is preferably not

25 possible for the unit to be armed or disarmed by any telephone other than the preprogrammed telephone.

The unit according to the second aspect of the invention may have all the features of the first aspect of the invention. However, the second aspect of the

30 invention may also be applied to a unit which serves only as a portable alarm unit, and is not in itself useable as a mobile telephone.

The alarm call issued by the unit according to the invention in the event that the alarm condition is detected may be a call to another telephone, which may be a fixed landline or another mobile telephone. The call may transmit a prerecorded voice message or a text message. The call may alternatively (or in addition) be to a predetermined e-mail address. As used herein, the term "destination telephone number" encompasses these and all other types of receiver to which a message may be transmitted via a cellular telephone network. The call may be transmitted, either simultaneously or sequentially, to more than one destination telephone number.

As well as the automatic issuance of the alarm call to the destination telephone number, the unit according to the invention may act as a local alarm by emitting an audible or visual alarm signal. Such an alarm signal may be generated upon detecting the alarm condition, in the same way that the alarm call is generated. Such an audible signal may be, for instance, a siren or buzzer. A visual signal may be a flashing light. Though the emission of such signals may be desirable in certain applications, in many instances it may be undesirable. Where the unit is placed in a vehicle, for example, if such a signal is emitted it may alert a thief to the presence of the unit whereas it may be preferable for the unit to remain undetected, particularly if the unit is capable of transmitting positional information that might assist in recovery of the vehicle.

Alternatively, or in addition, the unit according to the invention may also incorporate a facility for manually triggering an immediate local audible and/or visual alarm. To achieve this, a manually operable button may be provided on the device which, when depressed, causes an immediate local alarm to be emitted and preferably also transmission of the alarm call as described above. The unit may thus be used in the manner of a conventional "panic alarm".

The unit according to the invention may further comprise positional functionality, eg by the incorporation of a Global Positioning System (GPS) signal receiver. Such a unit may operate by receiving signals from two or more GPS satellites in orbit above the Earth. The unit may also include a paging responder which

operates in response to a paging request to transmit positional information derived from the GPS signals. The paging request may originate from the owner of the unit, following an alarm signal transmitted to the owner as described above, or may originate from an alarm receiving centre as for conventional vehicle tracking systems. Preferably, however, the positional information is transmitted automatically as part of the alarm call, rather than in response to a paging request, and may be repeated automatically at intervals thereafter.

Where the unit incorporates GPS functionality it may also have utility as a personal GPS system, providing information on its instantaneous position to its carrier (or to a third party).

The unit according to the invention may further be operably linked to circuitry effective to, for instance, immobilise a vehicle in which the unit is located. Such a connection may be directly from the unit to the vehicle circuitry or may be indirect, immobilisation being in response to a paging request issued by a destination telephone number at which the alarm call is received.

The invention will now be described in greater detail, by way of illustration only, with reference to the accompanying drawings, in which

Figure 1 is a schematic perspective view of a combined mobile telephone and alarm unit according to the invention;

Figure 2 is a schematic illustration of the manner in which the unit can be used to prevent the theft of a briefcase; and

Figure 3 is a schematic illustration of the manner in which the unit can be used to track the movement of a stolen vehicle.

Referring first to Figure 1, a combined mobile telephone and alarm unit according to the invention is generally designated 1. The unit 1 is similar in external appearance and dimensions to a conventional mobile telephone, though in order

to accommodate the additional circuitry necessary to provide the functionality required by the invention the overall size and weight of the unit 1 may be somewhat greater than those of a mobile telephone with otherwise similar capabilities.

5

Like a conventional telephone, the unit 1 has a numerical keypad 2 for the input of a telephone number or other numerical information. A display screen 3 is provided for the display of information such as a dialled or incoming telephone number, battery status information etc. A loudspeaker is housed behind a grille 4
10 near one end of the unit and a microphone 5 is located near the other end, in conventional fashion. Other conventional controls, such as a power on/off switch 6 are also provided.

The unit 1 is further provided with at least one sensor, which in the embodiment
15 illustrated is a movement sensor housed entirely within the unit 1. Other forms of sensor which may be used include voltage drop sensors, infra-red sensors, heat sensors, air movement sensors, etc.

One example of the way in which the unit 1 may be used is illustrated in Figure 2.
20 In this example, the unit 1 is placed in a briefcase 20 which has been left unattended (Figure 2a). Prior to the owner leaving the briefcase 20, he enters a pre-programmed activation code (eg a four digit number) into the unit 1 via the keypad 2. This code arms the movement sensor so that any movement of the
25 unit causes it to transmit an alarm call to a telephone number that has been preprogrammed. In practice, there is a delay between entry of the activation code and arming of the sensor, to permit time for the user to position the unit 1 within the briefcase 2. Similarly, there is preferably a delay between movement of the unit 1 being detected and transmission of the alarm call, to permit the
30 sensor to be disarmed by its owner on collecting the briefcase 2, by input of the same or a different preprogrammed code number. Thus, prior to leaving his briefcase, the user switches the unit 1 on (if it is not already on) and enters the preprogrammed activation code. He then places the unit 1 in the briefcase 20 and closes (and possibly locks) the briefcase 20. To permit this to be done

without triggering the alarm call, the delay between entry of the activation code and arming of the movement sensor may be, say, ten seconds or so. After this delay period has elapsed, however, any movement of the briefcase 20 (and hence of the unit 1) will cause the alarm call to be transmitted via the cellular telephone network (represented by the mast 21) to the preprogrammed number which, in the example illustrated, may be another mobile telephone 22 carried by the owner of the unit 1. The owner is thus alerted to unauthorised movement of the briefcase 20.

10 If the briefcase 20 is not interfered with, when the owner returns he can open the briefcase 20, remove the unit 1 and disarm it by entry of the appropriate code. Provided that this operation is completed within the permitted preprogrammed delay period the alarm is not triggered and the alarm call is not transmitted.

15 In a preferred embodiment, however, the sensor is armed by dialling-in to the unit 1 using the owner's mobile telephone 22. The number of the mobile telephone 22 is preprogrammed into the unit 1 which recognizes the incoming call and responds by arming the sensor. The advantage of this method of arming the sensor is that it is instantaneous. Likewise, the sensor may be disarmed by
20 dialling-in from the mobile telephone 22.

A similar mode of operation is illustrated in Figure 3, in this instance in relation to the security of a car 30. The unit 1 is in this case hidden in the car 30, eg under a seat or in a glove compartment. Again, prior to the owner leaving the car 30, he
25 places the unit 1 in its concealed position, and then arms it by dialling-in from his mobile telephone 22. If the car is then stolen the unit 1 is activated and the alarm call is transmitted via the cellular telephone network 21. In the illustrated example, the alarm call is placed to the mobile telephone 22 carried by the vehicle owner.

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In this form of application it may also be beneficial for the unit 1 to be fitted with global positioning system (GPS) functionality so that the unit can transmit information on its instantaneous location. Such positional information is obtained

from overhead satellites 33 in a manner which is known per se, and is transmitted as part of the alarm call.

Claims

1. A portable alarm and cellular telephone unit, comprising a cellular telephone transmitter/receiver, telephone number input means, a microphone
5 and loudspeaker, wherein the unit further comprises a sensor adapted to detect an alarm condition, the sensor being operably linked to the transmitter/receiver such that upon detection of the alarm condition an alarm call is placed automatically to a predetermined destination telephone number.
- 10 2. A unit as claimed in Claim 1, wherein said telephone number input means comprises a numerical keypad.
3. A unit as claimed in Claim 1 or Claim 2, wherein the unit is further provided with a visual display screen.
- 15 4. A unit as claimed in any preceding claim, wherein the sensor is a movement sensor, which is actuated in response to any movement of the unit.
5. A unit as claimed in any preceding claim, which is connectable to one or
20 more external sensors.
6. A unit as claimed in any preceding claim, further comprising means for arming of the sensor or a selected one or more of several sensors.
- 25 7. A unit as claimed in Claim 6, wherein said means comprise a manually operated switch.
8. A unit as claimed in Claim 6, wherein said means comprises means for entering a predetermined code via the telephone number input means.
- 30 9. A unit as claimed in Claim 6, wherein the sensor is armed by dialling-in to the unit from a remote telephone.

10. A unit as claimed in Claim 9, which is preprogrammed with the number of the remote telephone by which the sensor is to be armed.

11. A portable alarm unit comprising a cellular telephone receiver/transmitter and a sensor adapted to detect an alarm condition, the sensor being operably linked to the transmitter/receiver such that upon detection of the alarm condition an alarm call is placed automatically to a predetermined destination telephone number, and wherein the sensor is alternately armed and disarmed by reception of an incoming telephone call.

12. A unit as claimed in any preceding claim, further comprising means for issuing a local audible or visual alarm signal upon detection of the alarm condition.

13. A unit as claimed in any preceding claim, further comprising manually actuable means for issuing a local audible or visual alarm signal.

14. A unit as claimed in any preceding claim, further comprising a Global Positioning System (GPS) signal receiver adapted to receive GPS signals from two or more GPS satellites in orbit above the Earth, and adapted to transmit positional information derived from the GPS signals.

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KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

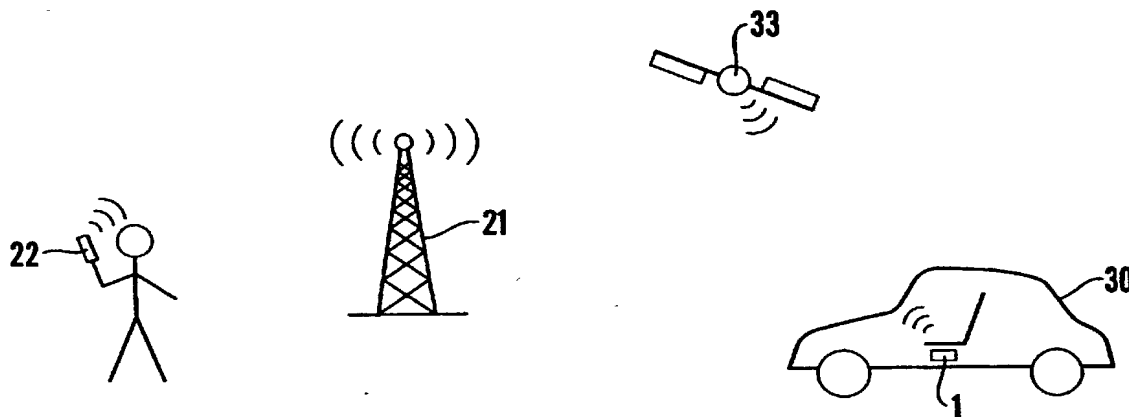
Published:

— With international search report.

— Before the expiration of the time limit for amending the
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amendments.

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: MOBILE TELEPHONE-BASED ALARM DEVICE



(57) Abstract: A portable alarm and cellular telephone unit (1) comprises a cellular telephone transmitter/receiver and a sensor adapted to detect an alarm condition. The unit (1) has the appearance of a conventional mobile telephone, comprising a keypad (2) for input of a telephone number, a microphone (5) and a loudspeaker (4), and can be used as a conventional mobile telephone. The sensor is linked to the transmitter/receiver such that upon detection of the alarm condition an alarm call is placed automatically to a predetermined destination telephone number. The sensor may be a movement sensor which is actuated by any movement of the unit (1). When the unit (1) is left, in an armed condition, in for instance a vehicle the alarm call is triggered in the event that the vehicle is moved.

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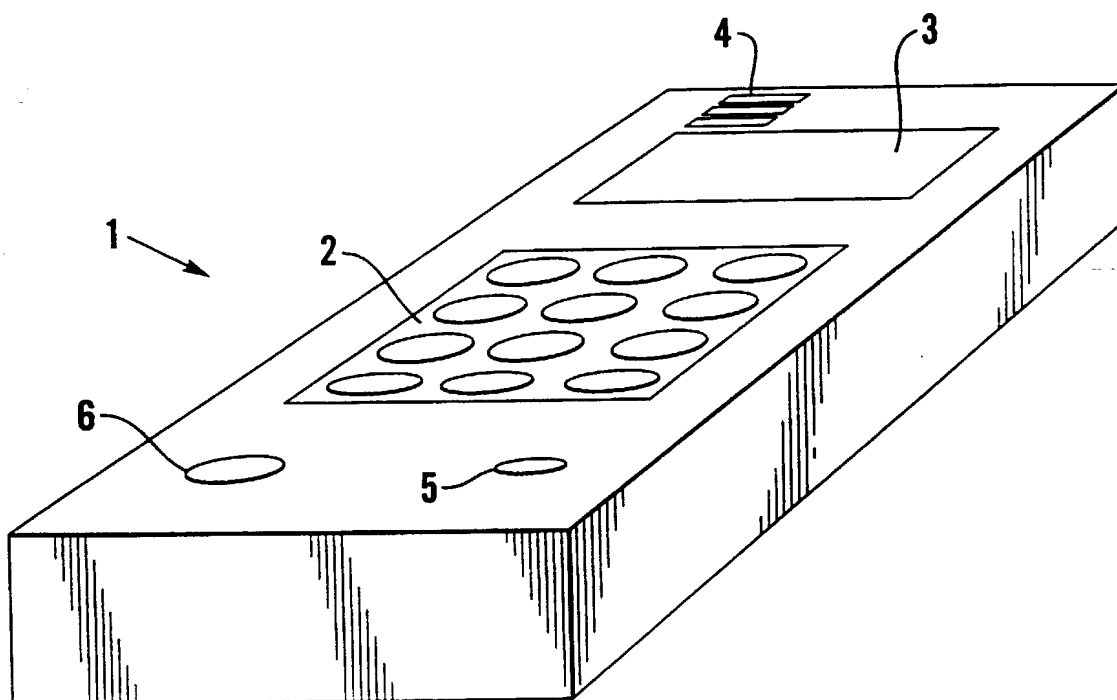


Fig. 1

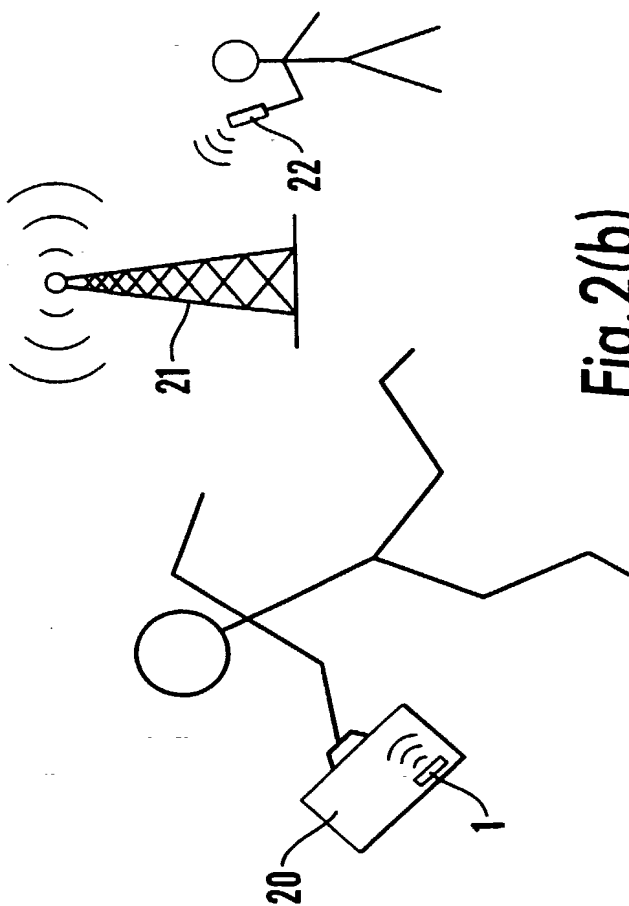


Fig. 2(b)

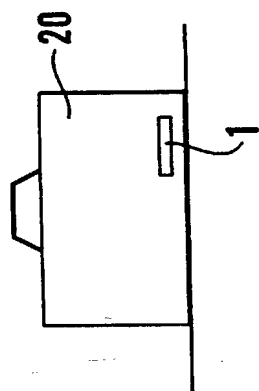


Fig. 2(a)

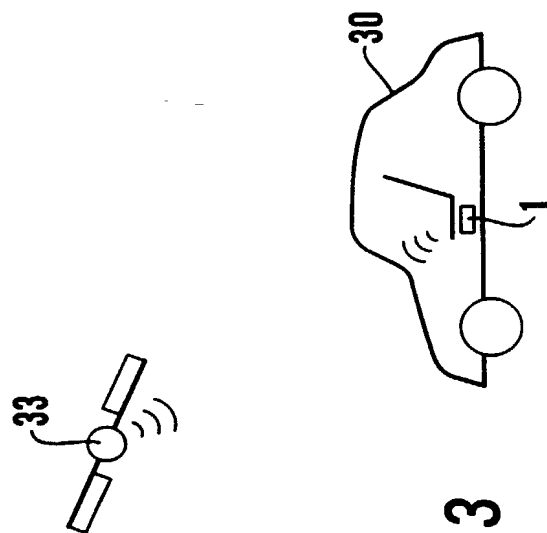
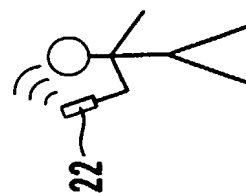
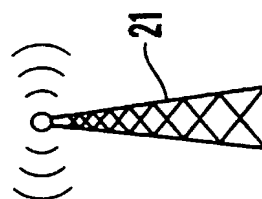


Fig. 3





Our Reference: AJO-101-A

COMBINED DECLARATION AND POWER OF ATTORNEY

DECLARATION:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

MOBILE TELEPHONE-BASED ALARM DEVICE

the specification of which (check only one item below):

☐ is attached hereto.☐ was filed as United States application Serial No. _____ on _____, and was amended on or through _____ (if applicable).☒ was filed as PCT international application Number PCT/GB00/03617 on 21 September 2000, and was amended under PCT Article 19 on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate or §365(a) of any PCT international application(s) which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application(s) having a filing date before that of the application on which priority is claimed:

Prior Foreign/PCT Application(s) and any Priority Claims Under 35 U.S.C. §119:

Priority Claimed

<u>9922447.9</u>	<u>Great Britain</u>	<u>22 September 1999</u>
(Number)	(Country)	(Day/Mo/Yr Filed)
<hr/>		
(Number)	(Country)	(Day/Mo/Yr Filed)

<input checked="" type="checkbox"/>	<input type="checkbox"/>
Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
Yes	No

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_____ (Application Number)	_____ (Filing Date)
<hr/>	
_____ (Application Number)	_____ (Filing Date)

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_____ (Application Number)	_____ (Filing Date)	_____ (Status: patented, pending, abandoned)
<hr/>		
_____ (Application Number)	_____ (Filing Date)	_____ (Status: patented, pending, abandoned)

POWER OF ATTORNEY:

9 ✓
I hereby appoint the following attorney(s) and/or agent(s) Thomas N. Young, Patent Office Registration No. 20985, Andrew R. Basile, Patent Office Registration No. 24753, William M. Hanlon, Jr., Patent Office Registration No. 28422, Marshall G. MacFarlane, Patent Office Registration No. 30403, Thomas D. Helmholdt, Patent Office Registration No. 33181, Todd L. Moore, Patent Office Registration No. 36874, Thomas E. Bejin, Patent Office Registration No. 37089; Darlene P. Condra, Patent Office Registration No. 37113; and Christopher A. Mitchell, Patent Office Registration No. 40729 as my attorney(s) and/or agent(s), to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1-00
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